Arizona Transportation Research Center

Newsletter — January 2003

Project Updates

Highlights from selected projects

STATE PLANNING AND RESEARCH (SPR) PROJECTS

SPR 371 – *Maintenance Cost Effectiveness Study*

A centerpiece of this study is the development of cutting-edge noise measurement technology. A close proximity (CPX) noise trailer, constructed in accordance with International Organization for Standardization (ISO) requirements, measures the change in acoustic properties of pavement surfaces over time. ADOT and Caltrans have partnered together to promote the use of "Quiet" pavements as a pavement noise mitigation strategy. In conjunction with the CPX trailer Caltrans has been a leader in the use of noise intensity measurements, consequently both systems are being used and evaluated.

ATRC Noise Measurement Trailer

SPR 494 – *Enhancing the Pavement Management System*

ADOT recently contracted with Stantec Consulting to develop a new pavement management system (PMS) for the Department. The new system will include not only the traditional pavement management functions but also preventive maintenance functions. The new features will allow a more effective evaluation of maintenance pavement surface strategies.

SPR 512 – *ITS Traffic Data Master System*

Under the Intelligent Transportation System (ITS) research area ADOT has contracted OZ Engineering to develop a system to consolidate highway system data. The project is aimed at improving operational access to information on traffic activity, as well as roadway and weather conditions. ADOT has linked its variable message signs and closed-circuit video cameras and is incorporating National Weather Service data.

SPR 530 – *Critical Factors in the Development of Transit Systems in Rural Arizona*

This research project is designed to identify, prioritize and discuss the most critical factors for the implementation of new general public transit systems in rural Arizona. The project will incorporate ADOT Transit Section data.

SPR 540 – *Evaluation of Measures to Minimize Wildlife Vehicle Collisions and Maintain Wildlife Permeability across Highways*

Animal-vehicle collisions are a constant hazard in roads throughout Arizona. Further, protecting wildlife migration routes is an important environmental consideration. While there are many systems in use and proposed to reduce collisions, the efficacy of these systems is not well documented. Researchers are collecting data and documenting the effectiveness of a variety of measures that will minimize animal-vehicle collisions and protect migration routes. The estimated completion date is 2005.

SPR 542 – *Congestion Management Strategies*

Traffic congestion one of the most important concern of the motoring public. The ADOT consultant, Bucher, Willis & Ratliff, compiled a comprehensive database of congestion management strategies, including construction, policy, and ITS elements. The report will be provided to ADOT senior management to assist with planning for future congestion management strategies.

ATRC UPDATE

The Arizona Transportation Research Center met with the ADOT research Steering Committee on October 31, 2002. The Steering Committee, which is comprised of ADOT executive management, directed ATRC to proceed with implementing recommendations from the Peer Exchange held during June 2002. Included in these recommendations is a revitalization of the ADOT Research Council.

The first comprehensive ADOT research implementation report is being prepared by ATRC. The document will review and discuss the implementation of recent ATRC research projects. Anyone with information about implementation of ADOT research is encouraged to contact ATRC.

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